

KIRKBY-IN-ASHFIELD
URBAN DISTRICT COUNCIL.

Annual Report

For 1907,

BY

John Mackenzie,

MEDICAL OFFICER OF HEALTH.

East Kirkby :
Printed by A. Moore, at the Phoenix Works, Cemetery Road.

Kirkby-in-Ashfield Urban District Council.

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East Ward

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West Ward :

GEO. HY. HUNT

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Assistant Overseer :

PERCY CUPIT.

Gas Manager :

SAMUEL SHADBOLT.

REPORT.



To the Chairman and Members of the
Kirkby-in-Ashfield Urban
District Council.



GENTLEMEN,

I have once more the honour to submit to you my Annual Report on the health and sanitary circumstances of your district.

As you are aware the area of the Urban District is 5,814 acres and is divided into three Wards, East, West, and South. The physical features, subsoil, and geological formation in each Ward slightly differ as explained in previous Reports.

Estimated
Population

The estimated population up to Midsummer, 1907, was 16,052, giving an average of 5·2 individuals to each house. The district is essentially a coal mining one, and considering the great activity of this industry during the year, thus causing migration of workers from less active industries, and also the fact that building operations have been very slack for the same period, 5·2 per house is, in my opinion, under rather than over the mark.

The following Table (I) is designed to show the increase in population and house property.

TABLE I.

Showing increase in population and house property
since census 1901 :—

Years.	East Ward	West Ward	South Ward	Totals	Annual increase		Increase in population and house property
					Houses	Population	
1901—							
Inhabited houses	756	625	674	2055			
Population ...	3872	3173	3273	10318			
1902—							
Inhabited houses	906	686	707	2299	244		
Population ...	4548	3444	3549	11541		1223	
1903—							
Inhabited houses	1065	741	726	2532	233		
Population ...	5325	3705	3630	12660		1119	
1904—							
Inhabited houses	1193	804	754	2751	219		
Population ...	5965	4020	3770	13755		1095	
1905—							
Inhabited houses	1267	852	774	2893	142		
Population ...	6335	4260	3870	14465		710	
1906—							
Inhabited houses	1313	901	800	3014	121		
Population ...	6828	4685	4160	15673		665	
1907—							
Inhabited houses	1364	916	807	3087	73		
Population ...	7093	4763	4196	16052		379	

There is a diminished ratio of increase again this year in all the Wards, most marked in the West and South Wards. The East Ward shows an increase of 51 new houses and 265 population ; the West Ward, 15 new houses and 78 population ; the South Ward, only 7 new houses and 36 population. Hitherto the diminished ratio of increase has been practically at the same rate in all the Wards, but it will be seen from this Table that during

Diminished ratio of increase in population and house property

the year the West and South Wards show a great falling off in this important matter of house-accommodation for the working classes.

One hundred and sixty-three deaths at all ages were registered in the Urban District, equivalent to an annual mortality of 10·1 per 1000 of the population, occurring quarterly as follows :—

Vital statistics
for 1907

			Males	Females
Deaths at all ages—rate 10·1	1st Quarter	...	26	16
	2nd „	...	26	24
	3rd „	...	12	16
	4th „	...	19	24
	Totals for 1907	...	83	80
	Totals for 1906	...	85	93
	Totals for 1905	...	86	76
	Totals for 1904	...	101	74
	Totals for 1903	...	69	85
	Totals for 1902	...	90	86

TABLE II.

Showing deaths in Wards :—

		East Ward	West Ward	South Ward	Deaths occurring quarterly in Wards
1st Quarter	...	21	8	13	
2nd Quarter	...	26	12	12	
3rd Quarter	...	12	9	7	
4th Quarter	...	22	12	9	
Totals 1907	...	81	41	41	
Totals 1906	...	63	63	52	
Totals 1905	...	64	50	48	
Totals 1904	...	69	47	59	
Totals 1903	...	57	52	45	
Totals 1902	...	65	61	50	
Totals 1901	...	61	55	50	
Totals 1900	...	88	66	36	
Totals 1899	...	58	56	45	
Totals 1898	...	56	35	49	
Totals 1897	...	58	24	47	

Death-rate for the last twelve years :—

Corrected death-rate according to census 1901	1896	...	18·5 per 1000 of the population	
	1897	...	14·7	„ „
	1898	...	15·0	„ „
	1899	...	16·4	„ „
	1900	...	18·9	„ „
	1901	...	15·9	„ „
	1902	...	15·2	„ „
	1903	...	12·1	„ „
	1904	...	12·6	„ „
	1905	...	11·1	„ „
	1906	...	11·9	„ „
	1907	...	10·1	„ „

Outside
cases

As just stated the total deaths at all ages occurring in the Urban District is 163, equivalent to an annual mortality of 10·1. Seven other deaths occurred outside the district, making the total deaths at all ages 170, and the annual mortality 10·5; either of these figures are remarkably low for a population like ours, where almost without exception every individual of adult age is given to incessant manual toil. I should like to draw attention to two of these seven outside cases which I think should not be charged to this District at all, for this reason: one of them to my personal knowledge left the district 14 years ago. The other came to reside in Kirkby from the City of Nottingham in June last and was removed to Basford Workhouse on 14th December; his personal history was as follows: a native of Leicestershire, he spent 20 years of his life at Ilkeston, and during the last four years resided in Nottingham, and only came into this district in June this year.

Ward
statistics

Of more special interest are Ward statistics showing how the incidence of disease affects certain areas of known population; here we find statistics giving a clue to the hidden influences of subsoil and drainage, social habits, house accommodation, street and open space formation. From Table II. it will be seen that in the East Ward 81 deaths were registered at all ages in 1907, against 63 in 1906, 64 in 1905, and 69 in 1904, giving a Ward death-rate at all ages of 11·4 in 1907, 9·2 in 1906, 10·1 in 1905, and 11·5 in 1904.

East Ward

In the West Ward the deaths at all ages were 4·1, against 63 in 1906, 50 in 1905, 47 in 1904, giving a Ward deathrate of 8·6 in 1907, 13·4 in 1906, 11·6 in 1905, and 11·7 in 1904.

West Ward

In the South Ward 41 deaths were registered at all ages, against 52 in 1906, 48 in 1905, and 59 in 1904, giving a Ward death-rate of 9·7 in 1907, 12·5 in 1906, 12·1 in 1905, and 15·6 in 1904.

South Ward

Taking the figures for the ten years ending December 1907, the average death-rate at all ages for the East Ward is 13·7, West Ward 14·3, and South Ward 12·8. From 1901 to 1906 inclusive the deaths at all ages in the East Ward have been invariably lower than in the other two Wards; the explanation of this fact offered in previous Reports has been that though the East Ward has increased so in population that it is rapidly assuming the formation of a town, the possible dangers of this increase have been obviated by more active sanitary improvements. It might be thought that in a place of mushroom growth like East Kirkby there would be fewer senile deaths, i.e., from 65 years and upwards, and that this would go a long way towards explaining the low death-rate, but an

examination of the death statistics does not bear out this idea. As we all know the average duration of life is the mean between the extremes of infancy and old age: the unhealthiest areas are not those in which a large number of old people die yearly, but in which a large number of young people die yearly. To state this statistically—we take the last five years and find 138 deaths at 65 years and upwards in the whole Urban District, or divided into Wards: East Ward 72, West Ward 29, South Ward 37, the corresponding average death-rate being 10·3, 11·6, 12·4, which shows the lowest death-rate in that Ward which has the highest senile death-rate in proportion to the population. The important part played by infant mortality in reference to this subject will be considered later.

In explanation of the slightly higher death-rate in the East Ward this year, it may be stated that the three chief causes were (1) an epidemic of measles, which broke out early in the year in the South Ward, comparatively mild in its inception, but increasing in virulence as it progressed, so that it was very severe when it reached the East Ward: the deaths were East Ward 5, West Ward 2, and South Ward 3. (2) Two outbreaks of Diphtheria in the East Ward, causing three deaths, against none in the West Ward, and one in the South. (3) Pneumonia, which was responsible for 10 deaths, against West Ward 6, and South Ward 5. Socially and industrially the various divisions of this District are practically the same, but the South Ward is situated on an elevated table land, with sharp inclines, and a porous sandy sub-soil. The influence of this physical feature is to be seen every year in the diminished number of deaths from diarrhœa in this Ward. The East Ward, on the other hand, is lower down the Erewash Valley, situated on the magnesian limestone,

with a subsoil of clay and much damper, naturally conducive to diarrhœa in hot weather and pneumonia in damp, cold *ditto*. The same remarks apply to parts of the West Ward, e.g., the Mayfield district, but the Park district though on higher elevation has a hard rocky foundation and a non-porous sub-soil, so that there is little change in the ground water, and Old Kirkby, another district in this Ward, is noted for its low lying damp yards.

Five hundred and thirty-five births were registered during the year, equivalent to an annual birth-rate of 33·3 per 1000 of the population, occurring quarterly as follows :

		Illegitimates						Birth-rate		
		Males		Females		Males			Females	
1st Quarter	...	64	...	70	...	2	...		2	
2nd Quarter	...	75	...	65	...	2	...		3	
3rd Quarter	...	54	...	58	...	4	...		1	
4th Quarter	...	56	...	74	...	4	...		1	
		<hr/>		<hr/>		<hr/>			<hr/>	
Totals	1907	...	249	267		12			7	
„	1906	...	250	247		10			6	
„	1905	...	259	236						
„	1904	...	281	240						
„	1903	...	244	251						
„	1902	...	239	227						
„	1901	...	214	215						
„	1900	...	202	199						
„	1899	...	219	193						
„	1898	...	199	155						
„	1897	...	190	208						

TABLE III.

Showing births in each Ward :—

Births occurring quarterly
in Wards

		East Ward	West Ward	South Ward
1st Quarter	...	67	39	32
2nd Quarter	...	57	55	33
3rd Quarter	...	53	29	35
4th Quarter	...	59	42	34
Totals 1907	...	236	165	134
Totals 1906	...	237	158	118
Totals 1905	...	211	161	123
Totals 1904	...	238	122	161
Totals 1903	...	212	146	137
Totals 1902	...	204	129	133
Totals 1901	...	169	125	135
Totals 1900	...	181	107	113
Totals 1899	...	180	108	124
Totals 1898	...	156	91	106
Totals 1897	...	178	79	141

Comparative
birth-rate
corrected
according to
census 1901

Birth-rate for the last 12 years :—

1896	...	39.5 per 1000 of the population
1897	...	44.7
1898	...	38.1
1899	...	42.6
1900	...	39.9
1901	...	41.2
1902	...	40.4
1903	...	39.1
1904	...	37.8
1905	...	34.2
1906	...	32.7
1907	...	33.3

Sixty deaths were registered under one year of age, equivalent to an annual infantile mortality of 112·1 per 1000 births, 352·9 per 1000 total deaths, and 3·7 per 1000 of the population, occurring quarterly as follows :—

Infantile
mortality

			Illegitimates	
	Males	Females	Males	Females
1st Quarter ...	14	5	2	0
2nd Quarter...	6	6	0	0
3rd Quarter ...	5	5	0	0
4th Quarter ...	7	9	0	1
	—	—	—	—
Totals 1907 ...	32	25	2	1
	—	—	—	—
Totals 1906 ...	31	33	3	4
	—	—	—	—
Totals 1905 ...	35	28		
	—	—		
Totals 1904 ...	54	32		
	—	—		

TABLE IV.

Ward
infantile
mortality

Showing deaths under one year occurring quarterly
in Wards :—

	East Ward	West Ward	South Ward
1st Quarter ...	11	5	5
2nd Quarter ...	6	4	2
3rd Quarter ...	5	2	3
4th Quarter ...	8	6	3
Totals 1907 ...	30	17	13
Totals 1906 ...	26	28	17
Totals 1905 ...	24	21	18
Totals 1904 ...	39	22	25
Totals 1903 ...	24	12	19
Totals 1902 ...	28	28	25
Totals 1901 ...	25	25	22
Totals 1900 ...	44	23	15
Totals 1899 ...	23	21	14
Totals 1898 ...	29	8	17
Totals 1897 ...	21	7	28
Totals 1896 ...	35	12	16

Infant Death-rate for the last twelve years :—

1896	...	185·9	per 1000 births.	
1897	...	140·7	„	
1898	...	152·5	„	
1899	...	140·7	„	
1900	...	204·4	„	Infant death- rate for last twelve years
1901	...	167·8	„	
1902	...	173·8	„	
1903	...	111·1	„	
1904	...	165·0	„	
1905	...	127·2	„	
1906	...	138·4	„	
1907	...	112·1	„	

Average 1896-1907...151·6.

TABLE V.

Showing Notifiable Zymotic Diseases occurring in each month :—

Notifiable
Zymotic
diseases
occurring in
each month

		Scarlet fever	Diphtheria	Typhoid fever	Puerperal fever	Erysipelas	Small-pox	Membranous Croup	Chicken-pox	Typhus fever	Cerebral spinal fever
January	...	1	...	...	...	4	...	...	...	...	...
February	...	8	...	1	...	2	...	...	...	...	...
March	...	6	1	1	1	3	...	...	...	...	...
April	...	7	...	2	...	4	...	...	...	...	...
May	...	6	5	...	...	2	...	...	...	...	...
June	...	...	1	1	...	1	...	...	...	...	...
July	...	3	...	...	...	...	...	...	...	...	...
August	...	6	...	...	...	...	...	...	...	...	...
September	...	12	...	...	...	3	...	...	...	...	...
October	...	7	1	2	...	3	...	...	...	...	1
November	...	5	...	1	...	5	...	...	...	...	...
December	...	7	...	2	...	1	...	...	...	...	...
Totals 1907...		68	8	10	1	28	...	...	...	...	1
Totals 1906...	120	13	27	2	23	...	...	...	...	...	...
Totals 1905...	92	8	38	2	20	...	...	...	...	...	...
Totals 1904...	79	6	18	3	12	3	1	38	...	...	...
Totals 1903...	41	4	26	1	17	5	...	...	...	...	...
Totals 1902...	17	...	16	3	4	...	...	...	...	...	...
Totals 1901...	11	2	19	2	8	1	...	...	...	...	...
Totals 1900...	23	9	18	...	15	...	...	...	...	...	...
Totals 1899...	163	19	22	5	13	...	1	...	...	...	...
Totals 1898...	65	5	23	...	14	...	1	...	...	...	...
Totals 1897...	27	2	37	...	11	...	6	...	1	...	...
Totals 1896...	12	7	12	2	3	...	...	...	...	...	...

TABLE VI.

Showing Notifiable Zymotic Diseases occurring in each Ward :—

	East Ward	West Ward	South Ward	Notifiable Zymotic diseases occurring in each Ward.
Cerebro spinal fev.	...	...	1	
Diphtheria ...	.6	...	2	
Erysipelas ...	11	6	11	
Scarlet fever ...	46	15	7	
Typhoid fever ...	5	3	2	
Puerperal fever ...	...	...	1	
Totals 1907 ...	68	24	24	
Totals 1906 ...	60	90	35	
Totals 1905 ...	44	72	45	
Totals 1904 ...	42	30	88	
Totals 1903 ...	43	26	25	
Totals 1902 ...	15	15	12	
Totals 1901 ...	16	25	2	
Totals 1900 ...	19	24	22	
Totals 1899 ...	88	101	34	
Totals 1898 ...	58	23	27	
Totals 1897 ...	39	21	24	

TABLE VII.

Showing deaths from Zymotic Diseases occurring in each month :—

Deaths from
Zymotic
diseases
occurring in
each month

		Scarlet fever	Diphtheria	Typhoid fever	Typhus fever	Zym. Enteritis	Puerperal fever	Whoop. Cough	Erysipelas	Measles	Influenza	Cere. spin'l fev.
January	...	...	...	...	...	...	...	...	...	...	...	...
February	...	...	...	...	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	1	...	...
April	...	...	1	...	...	...	...	...	...	1	...	...
May	...	...	3	...	...	...	...	...	...	3	...	...
June	...	...	...	...	...	...	...	...	...	4	...	...
July	...	...	...	...	...	1	...	...	...	...	...	...
August	...	...	...	...	...	1	...	...	...	...	...	...
September	...	1	...	...	...	...	...	1	...	1	...	...
October	...	...	...	...	...	1	...	...	...	...	...	1
November	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	2	...	...	...	...
Totals 1907...		1	4	...	...	3	...	3	...	10	...	1
Totals 1906...	...	...	1	1	...	10	...	6	...	...	2	...
Totals 1905...	...	...	...	...	...	8	...	7	...	16	3	...
Totals 1904...	...	...	3	3	...	13	2	3	...	1	...	...
Totals 1903...	1	1	6	...	4	...	...	...	2	...	...	...
Totals 1902...	...	...	2	...	1	2	6	...	13	...	...	...
Totals 1901...	...	1	1	...	10	2	3	2	6	...	...	...
Totals 1900...	2	1	...	...	10	1	3	...	...	...	...	...
Totals 1899...	5	3	4	...	12	2	1	...	6	...	...	...
Totals 1898...	3	...	3	...	15	...	4	1	4	...	...	...
Totals 1897...	1	1	4	1	6	...	5	...	...	...	...	...
Totals 1896...	...	2	4	...	7	...	5	...	5	...	...	...

TABLE VIII.

Showing deaths from Zymotic Diseases occurring in each Ward :—

	East Ward	West Ward	South Ward
Diptheria ...	3	...	1
Zymotic Enteritis	2	1	...
Whooping Cough	2	1	...
Typhoid Fever ...	...	...	...
Measles ...	5	2	3
Scarlet Fever ...	1	...	...
Cerebro Spinal Fever	...	...	1
Totals 1907...	13	4	5
Totals 1906...	9	10	1
Totals 1905...	13	12	9
Totals 1904...	13	4	8
Totals 1903...	11	...	3
Totals 1902...	9	13	2
Totals 1901...	10	9	5
Totals 1900...	9	3	5
Totals 1899 ..	10	15	8
Totals 1898...	13	4	13
Totals 1897...	7	4	7

Deaths from
Zymotic
diseases in
Wards.

Zymotic Death-rate for the last twelve years :—

Zymotic death-rate for last twelve years	1896	...	4·1 per 1000 of the population		
	1897	...	1·3	„	„
	1898	...	1·6	„	„
	1899	...	2·1	„	„
	1900	...	0·6	„	„
	1901	...	1·3	„	„
	1902	...	1·9	„	„
	1903	...	0·7	„	„
	1904	...	0·8	„	„
	1905	...	1·7	„	„
	1906	...	0·6	„	„
	1907	...	1·1	„	„

Five hundred and thirty-five births were registered, equivalent to an annual birth-rate of 33·3 per 1000, as against 32·7 for 1906—increase ·6. Although there is this slight increase this year, the birth-rate taken over a series of years shows a marked decline. For the 10 years 1898-1907 the average birth-rate has been 37·9, this means that we are this year 4·6 short. During the first five years in the same period the birth-rate has been 40·4, and during the other five years 35·4. To bring out the comparison more clearly, the Ward rates for the corresponding period (1898-1907) are East Ward 41·3, West Ward 35·5, South Ward 34·6, or for first five years East Ward 46·4, West Ward 35·9, South Ward 34·7, and for the other five years East Ward 36·2, West Ward 35·1, South Ward 34·5. For the year under review the Ward birth-rate is East Ward 33·2, West Ward 34·6, and South Ward 31·9. This shows a gradual decline in the birth-rate over the whole district in each Ward for a period of 10 years, a period sufficiently long to enable us to anticipate what will be the result in 20 or 30 years time, should the birth-rate continue to decline at the same ratio—viz : a birth-rate and death-rate so approximate, that the population will be stagnant. Of the total number of births 261 were males, 12 being illegitimate, and 274 were females, 7 being illegitimate.

Birth-rate

Sixty deaths were registered under one year of age, equivalent to an annual infantile mortality of 112·1 per 1000 births, against 138·4 in 1906, a gratifying reduction of 16·3 per 1000. This is the lowest infant death-rate yet recorded, save in 1903, when the figures were 111·1. We shall be able to realise better the wastage of infant life if we take a survey of the last 10 years 1898-1907. During this period the average infant death-rate over the whole district was 149·1, or in Wards : East Ward 146·8,

Infantile mortality

West Ward 160·8, South Ward 143·7. During the first five years of this period, the figures for the district as a whole were 167·8, and the last five years 130·7; or in Wards, for the first five years: East Ward 168·5, West Ward 186·9, South Ward 151·3, and for the last five years: East Ward 125·5, West Ward 134·8, and South Ward 136·8; this shows a considerable reduction in the last five years. For the year under review the Ward death-rate is: East Ward 127·1, West Ward 103·0, South Ward 97·0, which again compares very favourably with the Ward average for the last five years.

In glancing at the death-rate under various ages, it is easy to see that high infantile mortality in any year largely controls the death-rate of infants aged 1-5 years, for the succeeding five years. Thus a reduction in the infant death-rate means a good deal more than can be shown by statistics, and points to an improved condition in the health of the family as a whole, and improved vitality in the surviving child. There is no class in the community whose ill-health affects the survivors in the same degree as infants, so the more attention is paid to these, the better will be the general health of the district, and the better will each be equipped to fulfil their calling in life. This is what the genial American poet (Lowell) expressed when picturing the ideal working man:—

“ Stout muscles and a sinewy heart,
A hardy frame, a hardier spirit;
King of two hands, he does his part
In every useful toil and art.
A heritage, it seems to me,
A King might wish to hold in fee.

“ Notification
of Births ” Act

Here it is appropriate to refer to the recent “ Notification of Births ” Act. This Act, which is an adoptive one, requires that all births shall be notified to the M.O.H. within 36 hours.

For its efficient working a health visitor is required, who should be preferably a Nurse, trained at a Children's Hospital, who would give her time exclusively to the improving of the home-life of young infants, their clothing and feeding, and advising mothers as to their own health. When one realises the number of infants who die yearly from the ignorance of their parents, it is easy to see that a nurse of this description would be of inestimable value. In an intelligent article on the Barnsley calamity there are remarks so appropriate that I make no apology for quoting them: "Children are the most precious possessions we can ever have. Not only are they a part of ourselves, but they are a part which will last after we are dead. It is they who will do our work and stand in our place after we are gone, and carry on the projects which have occupied our attention during life. Love for our children is one of the passions, and the noblest passion, we share with the animal world; even the most timid of animals will risk its life in defence of its young, while the human child ought to be dearer to the parent than life itself." (*Nottingham Guardian*, Jan. 14th, 1908.)

It is interesting to notice the various ages at which these infants died and the cause of death. Of the total number 23 died under one month, and 14 of these under one week; 13 deaths were due to premature birth, one to diarrhœa, four to wasting and inanition, and five to other causes. Of the remaining 37, 10 died aged one and under three months, and 17 aged three months and under six months, and 10 aged eight months and under 12 months. Two deaths were due to measles, one to whooping cough, two to diarrhœa, one to premature birth, seven to wasting and inanition, one to tuberculosis, one to meningitis, five to convulsions, four to bronchitis, nine to pneumonia, and four unclassified.

ZYMOTIC DISEASES.

Measles

Measles was present in epidemic form from the beginning of April to the end of July. Ten deaths were registered, two under one year, six over one and under five years, and two over five and under 15 years. Five of these deaths occurred in the East Ward, two in the West, and three in the South.

Early in the month of March scattered cases of a mild nature occurred in the South Ward. At first the outbreak was controlled by home-isolation and the exclusion from school of the families affected, but the infection assumed epidemic form. Gradually as the disease advanced it became more virulent, the type changing from comparatively mild to severe, accompanied by pneumonia,, so that the Infant Schools at East Kirkby had to be closed from May 14th to June 21st. The children attending St. Thomas's temporary Infant School suffered most. By the end of June the epidemic subsided without extending to the West Ward, with the exception of a few cases in the Lindley's Lane district adjoining the East Ward. Hitherto measles when appearing in epidemic form have spread over the whole district with great rapidity; I consider the favourable termination of the recent attack to be due to the early closing of the Schools affected.

Diphtheria

Eight cases were notified, six in the East Ward, and two in the South Ward, with four deaths, three in the East Ward, and one in the South. This case mortality of 50% in both Wards is excessively high, and was mainly due to delay in calling in medical advice, as we have an antitoxin, an agent of great power, seldom failing when applied sufficiently early. Many Sanitary Authorities now provide antitoxin free for those unable to pay for it, which is of great preventative value, for when a case occurs

in a family every member is inoculated, and the disease arrested in its early stages. The first two cases occurred in a house in Milton Street provided with a w.c., the pan of this closet was broken and the seal destroyed during the ^{Locality and causation} early frost in February, so that from that time to May 7th liquid excretions fairly saturated the floor of the closet, which was neither ventilated nor provided with an inspection chamber. These two cases both ended fatally. The next outbreak occurred in Cemetery Road over a mile away. This house is also provided with a water closet, which was unventilated, and out of working order, so that the drains were never properly flushed; the dead end of the main sewer outside was also unventilated; the inspection chamber was too shallow and defective in construction being untrapped. One of these cases proved fatal. The next fatal case was notified from Sansom Street, South Ward; the chief sanitary defects here were that the closet was too near the dwelling-house, in a small back yard loosely paved with old ordinary bricks.

The danger of w.c.'s without ventilation and inspection chambers has been brought under your notice in several Annual Reports, and further reference will be made to it when dealing with sanitary defects, and communications from the Local Government Board on the subject received during the year.

Sixty-eight cases were notified: East Ward 46, West Ward 15, South Ward 7, with one death occurring in the ^{Scarlet Fever} East Ward. It is interesting to note the relation of these cases to school life; 36 of them occurred in children of school age, actually attending school, 27 in children under school age; either the child attacked first was not of school age or there were no children in the family attending school at all. School life is commonly blamed for the spread of Scarlet Fever, but here each year proves this

disease to be spread by other agencies as well, and to a large extent under our own control, such as Wakes, Workmen's Excursions, Sunday School and Band of Hope Demonstrations, and all other occasions, when children congregate together in large numbers.

An instance illustrating the truth of these remarks occurred this year. In June and July the whole district was practically free from Scarlet Fever, only three cases being notified in these months; at the end of July the Urban District was more free from Scarlet Fever than it has been for a long time. The three cases notified in July, which all had their origin in importation, came from the Mayfield District of the West Ward, over two miles away, and had no school connection with the East Ward at all. But early in August the Kirkby Wakes were held in the Market Place, East Kirkby, which was packed with show-vans, and during the Wakes week two cases were notified from Hodgkinson Road, in children aged two and four years, who had played daily amongst those vans, and had been nowhere else away from home. This later outbreak was of a much severer type than previous cases; it spread with such rapidity to the houses in the locality, that it was deemed advisable to exclude from school all the children residing in Alfred Street and Hodgkinson Road, i.e., in the vicinity of the Market Place, from Sept. 9th to Oct. 4th. Almost every family containing young children in these two streets was attacked, 15 cases being notified, and it was here that the fatal case occurred—a boy eight years old. The exclusion from school of these children undoubtedly saved the district from a very serious epidemic. I have never before known Scarlet Fever attack every house in a district with such uniform regularity.

This is not a notifiable disease ; it has been epidemic in the district during the latter half of the year, and specially severe in the last quarter. It is agreeable to find that only 3 deaths were registered, 2 in the South Ward and one in the West. The exigencies of school percentage compel the Attendance Officers to wink at whooping-cough in families, some of the members of which are attending school ; this should not be allowed, and I have no doubt that this will to a great extent be remedied under the new Medical Inspection of School Children.

Whooping-
cough

Ten cases were notified, East Ward five, West Ward three, South Ward two, none of which proved fatal. A glance at Table IV. will show that this is the lowest number ever recorded in this district, the best of all proofs of sanitary progress, for typhoid is a filth disease, and none is more amenable to sanitary improvements.

Typhoid Fever

In the East Ward the five cases occurred in Alexandra Street, Prospect Street, New Street, Byron Street, and Cemetery Road. In Alexandra Street the house is provided only with a midden privy of the old fashioned stamp ; the property was recently built by the Butterley Company, Ltd., and the state of affairs is fully described on page 32 of last year's Report, and will be again referred to when dealing with sanitary improvements during the year. In Prospect Street, New Street, and Byron Street the houses are provided with pail closets, but the yards are typical typhoid yards, damp and dirty, strewn over with cabbage leaves and other house refuse, and studded with fowl pens and rabbit hutches. The case in Cemetery Road occurred in a house with a w.c., but unventilated and untrapped, as already described.

Locality and
causation

East Ward

The three cases in the West Ward occurred in Church Street, Church Hill and Vernon Road. In Church Street

West Ward

South Ward

the house had been supplied with new drains and a new water supply laid down last year, but there is a midden privy, and the yard and immediate surroundings of the house are by no means clean, being littered with house refuse and scraps thrown to fowls and other domestic animals. At Church Hill the house is provided with a pail closet, the yard and immediate surroundings of the house are very clean, but there is an open ashpit which should be remedied. At Vernon Road a pail closet is in use; but the dry ashpit adjoining is converted into a hen-roost, and the whole of the open space is taken up with pig-styes and fowl-pens and fowls to the number of 41 are allowed a free run.

In the case at Bentinck Street, on examination the closet pan was found to be broken and the closet unventilated. In the other case at Smith's Row the house had a share in a pail closet. At this row there is a serious deficiency in closet accommodation calling for immediate remedy. There are 13 houses with 57 inhabitants, four families have one pail closet in common, and five families have two pail closets in common, and four again have two in common. Common decency, not to speak of sanitation, demands a closet for every family. The Council have notified the owners that such separate closets must be provided. The yards in this row require paving, channelling and asphaltting, but this will be dealt with under the heading of "yards and courts" later.

As on previous occasions I give here in tabular form the typhoid cases according to the sanitary conveniences of the houses:—

Houses with	w.c.'s	pails	privies	Total
East Ward ...	1	3	1	5
West Ward ...	0	2	1	3
South Ward ...	1	1	0	2

Twenty-eight cases of Erysipelas were notified, with no deaths: East Ward 11, West Ward 6, and South Ward 11. The great majority of the cases were of a simple nature occurring in aged and feeble persons. Erysipelas

Only one case was notified, viz., in the South Ward. Puerperal
Fever

This disease, also known as "Spotted Fever," occurs in sporadic cases in various parts of the country, but distinct altogether from the epidemic form of Spotted Fever so prevalent during the years 1906—1907 in such centres as Glasgow, Belfast, and Liverpool. On the 21st October a child, aged 4 years, residing at Reform Street, Annesley Woodhouse (South Ward) was seized with sudden illness, the symptoms pointing strongly to the epidemic form of Cerebro Spinal Fever. It died within 24 hours of the onset of the illness: the attack was so sudden and violent that nothing could be done for the poor little fellow. By the courtesy of Dr. Hamilton, I was notified early of the suspicious nature of the case, and communications were at once addressed to the County M.O.H., who suggested a post-mortem. and the sending of some cerebro-spinal fluid for bacteriological examination, but to this the parents would not consent. Cerebro-spinal
Fever

Preventive measures taken were early burial, house furniture, and clothing disinfected, children kept from Sunday and week-day school, and the family kept under daily observation for a fortnight. No other case simulating Spotted Fever occurred in the district. Preventive
measures

Three deaths were registered from Diarrhœa or Zymotic Enteritis: East Ward two, West Ward one. This is the lowest number ever recorded except in 1902, when only one death was registered. Diarrhœa

The immunity from Diarrhœa this year must be solely attributed to the cold, wet summer and autumn, low temperature retarding the cultivation of the diarrhœal germs, and abundant rain flushing our yards, and drains and sewers.

Of more lasting benefit would it be to the community at large could we ascribe this immunity to greater care and intelligence in the feeding of young infants, to the paving of courts and yards, to an increased sense of responsibility in parents towards their off-spring, especially infants in arms. The exposure to which infants in arms are subject in districts like ours is sometimes criminal. When but a few weeks old they are taken to public-houses on Saturday and Sunday nights, where they remain in small rooms crammed with people and reeking with the smell of beer and tobacco, for three or four hours to be turned out at closing time with a noisy inebriated crowd.

It is interesting to observe how unequally the incidence of this disease falls in Wards. During the ten years 1898-1907 the total deaths from summer diarrhœa were 86, or in Wards:—East Ward 47, West Ward 26, South Ward 13.

Phthisis

Fourteen deaths were registered from this disease, the highest number recorded, I regret to say, since we became an Urban Authority:—East Ward four, West Ward six, South Ward four. As regards age, one under 1 year, three aged 1 and under 5 years, one aged 5 and under 15 years, four aged 15 and under 25 years, and five aged 25 and under 65 years. There were two deaths from other tubercular diseases in children aged 1 and under 5 years.

Our phthisical record this year in the face of a declining death-rate is not so favourable as one would expect, and therefore requires further comment. First as to sex, the incidence for phthisis and other tubercular

diseases is exactly the same, eight males and eight females. Of the six deaths under five years five are infants under two, and one aged four years, so that 35% are children fed on a milk diet. Of the nine classified under ages 15-25, and 25-65 years, the ages and callings of the males were : one aged 46, a joiner ; one aged 24, a clerk ; three aged 32, 40, and 21 respectively are miners. The females were all in domestic service, aged 28, 20, 35, 33 ; 64·2% were thus in the prime of life, and presumably contracted the disease from their environment, i.e., home surroundings and employment. It should be mentioned that two of the females were domestic servants who came into the district in a dying condition.

Probable
causation

The following comparison with previous years in respect to totals, averages, and rate per thousand may prove interesting :—

Years ...	1896	1897	1898	1899	1900	1901
Deaths ...	7	7	6	12	12	7

Average 8·5.

Years ...	1902	1903	1904	1905	1906	1907
Deaths ...	6	8	6	8	9	14

Average 8·5.

Rate per 1000 of the population for each year :—

1896	...	·82
1897	...	·78
1898	...	·64
1899	...	1·22
1900	...	1·19
1901	...	·67

Average ·88 for the first six years.

1902	...	·52
1903	...	·63
1904	...	·43
1905	...	·55
1906	...	·57
1907	...	·87
Average ·59 for the last six years.		

It will be seen that the difference between these two periods is a very slight reduction, viz., ·29 in favour of the last six years.

**Precautions
to be adopted**

There still lingers in the public mind the idea that phthisis is hereditary, “runs in the blood”; this tends to paralyse individual effort towards reasonable precautions in the presence of this very infectious disease. It cannot be too often repeated that phthisis is infectious, and can be prevented by proper precautions like other infectious diseases. True it is that the disease is very insidious and often takes years to manifest itself; this should only make us all the more cautious.

The chief causes of consumption are (1) the milk and meat of tuberculous cattle, (2) living in overcrowded houses, where the air is vitiated and the lungs easily weakened; particularly is this the case when an inhabitant in such a house is suffering from advanced phthisis; the air, food, and everything else become impregnated with the germs of consumption, and one by one the inhabitants succumb.

All milk should be stored with the utmost care, and secured from all possibility of pollution by flies, dust, or any other kind of filth; it should also be invariably boiled before use. All that is said now-a-days about the ill-effect of boiling on the nutritive value of milk is simply academic, and may well be set aside here in the presence of the very real danger that exists from a disorganised

milk-supply.

Persons suffering from phthisis should sleep by themselves, and their sputa should be received into a vessel containing some absorbent material that can be easily burnt. Pocket spittoons are now common and inexpensive and can be obtained at any chemist's shop and always carried without discomfort.

To live in fresh air should be the great aim of the consumptive, so the windows of his living room and bedroom should be wide open night and day.

When a death occurs in a house, it is infinitely more important to have everything thoroughly disinfected than if the death were due to Scarlet Fever, Typhoid Fever, or even Small-pox. The walls, ceiling, and floor of every room should be laid bare, first fumigated and then washed and scrubbed with disinfecting fluid, and finally lime-washed. If people only realised the risk of catching phthisis from infected rooms, they would spare no trouble or expense in obviating the danger.

NON-ZYMOTIC DISEASES.

Diseases of the
respiratory
organs

Thirty deaths were registered at all ages, against 32 in 1906 :—14 under one year of age, four from Bronchitis, nine from Pneumonia, and one from Asphyxia ; six aged one and under five years, five from Pneumonia and one from Bronchitis ; five and under 15 years, two from Pneumonia ; 15 and under 25 years, two from Pneumonia, 25 and under 65 years, two from Pneumonia ; 65 and upwards, four from Bronchitis and three from Pneumonia.

Last year eight deaths under one year of age were registered as against 14 this year, i.e., in 1906 25% of the total deaths were under one year of age, this year the average is 46·6. The explanation of this difference will be found to be meteorological ; in 1906 we had a tropical summer, resulting in increased deaths from Diarrhœa—in all 10 under one year. This year we had a cold, wet summer and autumn with only three deaths from Diarrhœa, but 14 from the diseases under review.

Cancer and
malignant
disease

Four deaths were registered against 10 in 1906 ; East Ward two, West Ward one, and South Ward one. The following figures show deaths from malignant disease in this district since 1896 :—

Years ...	1896	1897	1898	1899	1900	1901
Deaths ...	2	4	0	3	4	3
Average 2·7.						

Years ...	1902	1903	1904	1905	1906	1907
Deaths ...	0	5	6	6	10	4
Average 5·1.						

So that the average for the last six years is practically double that of the previous six years.

Ten deaths were registered, against 17 in 1906 : Heart disease
 East Ward three, West Ward two, South Ward five.

Five deaths were enquired into by Coroner's inquest. Inquests and accidents
 verdict : one "accidentally drowned," one "measles and
 pneumonia," one "natural causes and pleurisy," one
 "accidentally run over," one "crushed abdomen and
 compound fracture of legs."

Sixteen deaths were registered as due to Premature
 Birth and Debility from Birth : East Ward eight, West Premature
 Ward five, South Ward three ; and eight deaths as due to birth,
 Marasmus or wasting : East Ward four, West Ward three, Marasmus,
 and South Ward one. These being all under one year of Debility from
 age are fully detailed in Table V. in the appendix, and birth
 dealt with in the text under Infantile mortality.

Fifty deaths are included under the head of "all Unclassified
 other causes"; East Ward 30, West Ward seven, South causes
 Ward 13.

The following figures may be of interest as showing The losses and
 how time and disease affect the population. For the 10 gains in a
 years 1898—1907 4,621 births were registered in the decade
 district; this may be called the income of our balance-
 sheet; 682 of these, or 14·76% died under one year of
 age, 247 or 5·32% died aged one and under five years, 73
 or 1·57% died aged five and under 15 years, and 74 or
 1·60% died aged 15 and under 25 years, 344 or 7·44% died
 aged 25 and under 65 years, 264 or 5·71% died aged 65
 years and upwards-total deaths 1683 or 36·42%; this is
 the expenditure, and leaves a balance to the good of 2938
 or 63·57%. Or again as illustrating the enormous wastage
 in child life, of the total deaths occurring during the
 decade 55·1% died before they were five years old, that is More than half
 to say more than every second funeral is a child under the deaths are
 five years. Be it remembered that the figures are fairly children
 representative of what is taking place all over the country. under five

GENERAL REMARKS.

Obligation to
report on steps
taken to
remedy existing
nuisances

Improvements
in w.c.'s
effected in 156
houses

Drain testing

As you are well aware the Central Authority requires that progress made during the year under review be faithfully recorded, and on the other hand it is my duty to remind you of failure to carry out sanitary improvements recommended in previous Reports. On page 38, Report 1906, attention is drawn to the fact that the bye-law requiring separate ventilators and inspection chambers for w.c.'s was not given effect to. Events in regard to diphtheria already explained (page 25), sharply accentuated this year the danger of unventilated w.c.'s. On receiving my report in reference to these outbreaks the Council very properly resolved that the matter be attended to at once, and no less than 156 w.c.'s were dealt with during the year. Mr. Massey, the Sanitary Inspector, deserves special credit for the zeal with which he took up this work and also the testing of drains; 1,041 yards of new house drainage were tested and 166 defects were discovered in connection with 77 houses; this is a percentage of 15·3 as against 12% last year.

Butterley Co.'s
property:
midden privies
converted into
pail closets

On page 32, Report 1906, attention is drawn to the incidence of Typhoid Fever on the Butterley Company's property—Edward Street and Alexandra Street—and to the fact that the houses though of a substantial class and recently erected, were supplied with undrained pig-styes and old fashioned midden privies. On June 12th, 1907, H. E. Mitton, Esq., General Manager to the Company, wrote as follows:—"In deference to your wishes I have given instructions for the present midden privies to be converted to pail closets, and the ashpits filled up to the ground level, and also for the present sumps to be removed from the path side to the back of the same in the gardens. The worst places will be attended to first." As already reported to you this promise is being loyally

carried out and the worst places are now completed.

Ventilators have been erected at various points in the main sewers, notably, one at the dead end in Cemetery Road, but all the sewers mentioned on page 36, Report 1904, have not yet received attention.

Main sewers
ventilated

Lindleys Lane and its connections remain in statu quo: see page 39, Report 1906, where the case is dealt with at length.

Lindleys
lane

The very serious nuisance in Pond Street has been abated: the enormous clay-hole is practically filled up, but to the south side of it, along the line of Hosiery Street, there is a considerable collection of surface water, which should be drained away, or we shall soon have another nuisance here quite as objectionable as that already remedied.

Pond street
nuisance
remedied

Street Lighting has been one of the main improvements effected during the year; the main thoroughfares and also many side streets are now publicly lighted: as detailed on page 41, Report 1906, a number of streets in each Ward are waiting to be paved and metalled. The Council had under consideration a communication from the Local Government Board respecting courts and yards, and in midsummer appointed a committee, representative of each Ward, to consider this question, along with the M.O.H. and Sanitary Inspector. After duly inspecting the yards complained of, it was decided that the following were most urgent, and resolved to attend to them with as little delay as possible.

Lighting and
paving of
streets and
yards

East Ward; Yards in Prospect Street, Byron Street, and Ellis Street.

West Ward: Yards in Church Street, Queen Street, and King Street.

Scuth Ward: Yards in Smith's Row and Mill Row.

Yards and
courts
requiring
asphalting in
each Ward

Notices have been duly served on the owners of the property, but up to the present nothing has been done.

I may be pardoned if I once more emphasise the need for the improvement of these yards, for not only are they the breeding ground of infectious germs, but in a district like ours still unprovided with a recreation ground, the children and young folk have only these dirty yards and courts in which to run about and play.

Dairies,
cowsheds and
milkshops

The Council's new Regulations re Dairies, Cowsheds, and Milk-shops Order of 1885 received the approval of the Local Government Board and came into force on October 1st, 1907. All these premises in the district were visited by the Sanitary Inspector and M.O.H., and copies of the regulations distributed. These regulations, if duly observed, will I am sure be productive of great good; they provide for the inspection of cattle, the lighting, ventilating, cleansing, drainage, and water supply of cowsheds and dairies, for the securing of cleanliness of milk-stores, milk shops, and milk vessels, and set out in detail the precautions against infection and contamination to be taken by persons selling milk from door to door. These last regulations are stringent, but not more so than is necessary in a district like ours, where the methods of storing and distributing milk are anything but satisfactory, as often brought under your notice.

'Public Health
Acts' Amend-
ment Act

This Act which comes into operation on Jan. 1st, 1908, is of great utility, inasmuch as any single section of it can be adopted, apart from any other portion, in the manner prescribed in the Act itself. It may not be out of place to note here in brief the sections which would prove of great practical value in this district. Section 25 enacts that, if any yard exclusively belonging to a dwellinghouse be not asphalted or paved, or suitably drained, the local

Yards to be
paved

authority may by notice in writing require the owner to execute the necessary improvements within 21 days, and if at the expiration of this period nothing has been done, they may execute the work themselves and recover the expense as a civil debt.

Section 35 gives the local authority power to remedy Nuisances the following nuisances by the same procedure, (a) if a cistern for the supply of water for domestic purposes be so placed, constructed, or kept, as to render the water therein liable to contamination or likely to cause risk to health, (b) if any gutter, drain, or downspout of a building shall by reason of its insufficiency or its defective condition cause damp in such a building or any adjoining building, (c) if any deposit of material in or on any building or land shall cause damp in such a building or any adjoining building so as to be dangerous or injurious to health.

Section 37. No water pipe or down-spout used for conveying surface water from any premises shall be used Water or stack pipes not to be used as ventilating shafts or permitted to serve or act as a ventilating shaft to any drain.

Section 38. The local authority may require any old drain not in communication with any sewer to be laid Local authority may require old drains to be laid open for examination before communicating with sewers open for inspection by the Surveyor, and no such communication may be carried out without his certificate.

Section 39, sub-section 2. Within one month from the date of the deposit with them of any plans for erecting a dwellinghouse the local authority may by written notice Provision and conversion of closet accommodation require the owner to provide the building with water or slop closets, a sufficient supply of water and sewer being available.

Section 39, sub-section 3. If, on the report of the M.O.H., or the Surveyor, or the Inspector of Nuisances, the local authority are satisfied that sufficient closet accommodation has not been provided, and the case is not one in

which existing accommodation can be altered, the local authority may, where sufficient water supply and sewers exist, require the provision of a sufficient number of water closets, as in the last sub-section.

Provision for filling up old cesspools and wells

Section 46. If it shall appear to the local authority by the report of the M.O.H., etc., that any cesspool, or other receptacle formerly used for excreta or other obnoxious matter, or any well or disused well, is prejudicial to health or otherwise objectionable for sanitary reasons, and that it is desirable to have the same filled up or removed, they may require the owner to do so.

Summary power to provide sinks and drains for buildings

Section 49. If it shall appear to the local authority on the report of the M.O.H., etc., that any building is not provided with sufficient appliances for carrying off refuse water, they may require the owner to provide same, or in default, execute the work themselves at the owner's expense.

Dairy men to furnish lists of sources of milk supply

Section 53. The local authority have power to require a dairyman to furnish a list of the sources from which his milk supply is obtained, in the case of any infectious disease suspected of being due to milk.

Filthy and dangerous articles to be purified

Section 56. Where the local authority are satisfied on the certificate of the M.O.H., that any article in a dwellinghouse is injurious to health by reason of its filthy condition, they may cause such article to be cleansed or destroyed at their expense.

Provision of nursing attendance by local authority

Section 67, sub-section 1. The local authority may provide nurses for attendance on patients suffering from any infectious disease in their district, who cannot be removed to the hospital owing to want of accommodation, or danger of infection, or in cases where removal to the hospital is likely to endanger the patient's health.

The South Ward has been considerably agitated during the year over burials in St. John's Churchyard, Kirkby Woodhouse. It is well known that Her late Majesty with and by the advice of Her Privy Council ^{Churchyards} ^{and Cemeteries} issued an Order limiting the burials in this burial ground and strictly defining the qualifications of future burials. I have carefully examined this burial ground and it appears to me that the ground is over-crowded and that for the protection of public health a representation should be made to the Home Secretary to the effect that the growth of the district and the circumstances of the place require that the exceptions and qualifications mentioned in the Order be reconsidered, seeing that no burials are allowed within 15ft. of the Church, and no fresh ground is available.

The churchyard attached to the Church of St. Wilfrid, in the West Ward, is finally closed, no further burials being permissible.

The General Cemetery at East Kirkby is well kept ; the practice of burying several young infants in one grave has been discontinued.

The overcrowding reported last year in Kirkby Infant School has not been remedied yet, but operations for enlarging the school have just been commenced. Considerable addition has been made to Chapel Street Mixed School, and it is proposed to build a large new school at Oxford Street, East Kirkby, which will relieve the pressure both in the East and South Wards.

Elementary
Schools

The lack of bedroom accommodation at Portland Row reported on page 31, Report 1905, and page 42, ^{Lack of} ^{bedroom} Report 1906, is being controlled by the Company carrying ^{accommodation} out their understanding with the Council, by which it was agreed to let the houses only to small families.

Market

I regret that I am unable to report any improvement in the condition of the Market Place. Travelling showmen are still allowed to put up there, and bring infection into the midst of the community. No proper sanitary stand has been constructed for the fish and fruit stalls, so that they are not protected from dust or other contamination, nor can the ground beneath them be cleansed by flushing.

Water supply

As mentioned on page 6, Report 1906, the inhabitants were considerably agitated towards the end of the year by the discoloration and sediment in the water supply, which was caused by the new headings that had been found necessary. Many ascribed all their ailments to the condition of the water; but though in my private practice I visit districts provided with water supply from three different sources, I was unable to find any difference in the health of the districts; not a single case could be fairly charged to the water supply. Samples of the water from the Council's well were submitted to the Public Analyst, and the report received was excellent both chemically and bacteriologically.

In this connection I must mention the urgent necessity of supplying Langton Hall and Kirkby Cliff with district water; both places have to depend on wells, sunk in situations by no means sanitary, and in a dry summer are often faced with an absolute water famine. Kirkby Cliff is most urgent, as there are often 20 head of cows being milked there, and very little pure water for them to drink, or for the washing of milk vessels.

**Road sweeping:
a County
Council
nuisance.**

As far back as Report 1902, page 31, I have called the Council's attention to the nuisance created by the collection of road sweepings in great heaps here and there

on the main highways, and have pointed out that the County Council and Urban District Council were equally guilty in this respect. The Urban Council have abated the nuisance on their roads, but for a graphic description of what the County Council do between here and Kirkby, I cannot do better than quote again what H. Seton Merriman says about road keeping in Spain, which is so appropriate that one might think it was our neighbourhood to which he refers :—"In Saragossa, as in many Spanish cities, certain old men are employed by the Municipal Authorities to sweep the dust of the streets into little heaps. These heaps remain at the side of the streets until the dogs and the children and the four winds disperse the dust again." So too in our district the heaps of road scrapings are left far too long, as it is well known that these scrapings are loaded with the most virulent infectious germs. Then when the heaps are gathered up, they are stored for road mending purposes, but in the two worst places in the district, viz., The Hill and below the Midland Station. At the first the heap is exposed to all the winds, and blown over gardens and into dwellinghouses ; the other place is a favourite spot for people to congregate both in winter and summer, and so should be kept sanitary ; it is also a favourite playground for children who may be seen playing with the dust or mud and throwing it at one another.

The sewerage system of the district is in good working condition. Three additional beds of an improved type with automatic sprinklers were laid down at Kirkby Lane Sewage Farm this year, and another is being taken in hand. Portland Row Sewage Works are working well, but as already reported to the Council, require more personal attention. The faults pointed out in my report on these works have been attended to. The sewerage of

Sewerage

Todd's Row and part of Annesley Woodhouse is still dealt with by irrigation, and in a satisfactory manner.

Scavenging

The Scavenging in all the Wards is now done by the Council's own horses and men ; a refuse destructor is much needed in the district for our complete sanitary equipment, in fact the refuse of so large a district cannot be satisfactorily dealt with in any other way.

Factory and Workshops Act, 1901. Section 132

As you are aware by Section 132 of this Act the Medical Officer of Health is required to report specifically on its administration in connection with (a) Factories, (b) Workshops, (c) Workplaces, (d) Homework. From a complete list furnished in the appendix you will see that there are in your district four Factories, nine Workshops, seven Workplaces, and 48 Outworkers (Homework). Thirty-eight inspections of Factories, Workshops, and Workplaces were made during the year, and 96 inspections of Homeworkers premises.

Separate closets for sexes erected

Kirkby Manufacturing Company mentioned in last year's Report as not having separate closets for sexes, have remedied this defect, and good new closets for both sexes are now provided. The complaint made in reference to Hardy and Martin, aerated water manufacturers, having the manure heap too near their premises and not often enough removed has been partially attended to ; the manure having been removed more frequently this year.

Unsuitable Bakehouses

On page 44, report 1906, it is stated that " the owner of a new bakehouse in Victoria Road has been informed that he has committed a breach of the sanitary requirements of Bakehouses (Sections 97-100). I regret that, although repeated representations have been made to Mr. Wilson, nothing has yet been done.

Another bakehouse deficient in special sanitary requirements is that occupied by Henry Eakin, Reform

Street, Annesley Woodhouse.

In connection with Homework 96 visits were made and during the measles epidemic in May and June work ^{Homeworkers premises} was stopped in 19 houses and goods fumigated and disinfected, and in four instances where Scarletina was reported from the houses the same course was adopted.

In the Appendix will also be found a summary of the Sanitary Inspector's work for the year, and a further ^{The Appendix} table of vital statistics embracing the Birth-rate, Death-rate and Infantile Death-rate since we became an Urban Authority.

The comparison with the Vital Statistics of England and Wales for 1907 shows our birth-rate considerably higher, 33·3, against England and Wales 26·3; death-rate ^{Comparison with England and Wales} 10·1, England and Wales 15·0; infantile mortality 112·1, England and Wales 118·0, but rural England and Wales, i.e., less the 218 towns, has an infantile mortality of 106·0 against Kirkby 112·1.

Gentlemen, the Report just read is on the whole, I trust, a candid one, and if here and there it is pointed out that certain matters are in arrears who on the other hand can doubt that the facts and figures presented go to make up a satisfactory history of sanitary progress very creditable to you?

I might be permitted to record my conviction after many years service that no Council could be more alert and anxious to co-operate with their Officials in promoting the health and well-being of the community.

I have the honour to remain,

Your obedient servant,

JOHN MACKENZIE, M.O.H.

Appendix.

Summary of work done in the Inspector of Nuisances Department during the year 1907 :—

	Inspections made	Informal Notices served by Inspector	Legal Notices by authority of Council	Nuisances abated after Notice	In statu quo
DWELLINGHOUSES :—					
Insanitary ...	33	33	...	33	...
Overcrowding ...	10	10	...	10	...
Ashpits and Privies ...	275	275	...	275	...
Defective Pail Closets ...	79	79	...	79	...
Defective W.C.'s ...	156	156	...	156	...
HOUSE DRAINAGE :—					
Defective Traps and no connections ...	105	105	...	105	...
Water Supply ...	2	2	...	...	2
Offensive Trades and other nuisances ...	8	8	...	4	4

The following cases were submitted to the Council monthly as follows :—

Jan.	Feb.	Mar.	April	May	June
54	49	70	19	208	27
July	Aug.	Sept.	Oct.	Nov.	Dec.
40	38	42	37	43	41
Houses Disinfected after Infectious Diseases					16
Schools Disinfected after re-opening					4

TABLE I.

For whole District. Corrected according to Census 1901.

Year	Population esti- mated to middle of each year	Births		Deaths under 1 year of age		Deaths at all ages		Deaths in Public Institutions	Deaths of non- residents regis- tered in district	Deaths of resi- dents registered beyond district	Deaths at all ages. Net	
		Number	Rate	Number	Rate	Number	Rate				Number	Rate
1897	8898	398	44.7	56	140.7	129	14.4	1	...	1	129	14.4
1898	9277	354	38.1	54	152.5	140	15.0	2	...	1	139	15.8
1899	9655	412	42.6	58	140.7	159	16.4	2	...	1	158	16.7
1890	10034	401	39.9	82	204.4	190	18.9	2	...	2	190	18.9
1901	10412	429	41.2	72	167.8	166	15.9	...	...	...	166	15.9
1902	11495	466	40.5	81	173.8	176	15.3	...	...	4	180	15.6
1903	12660	495	39.0	55	111.1	154	12.1	...	...	1	155	12.1
1904	13755	521	37.8	86	165.0	175	12.6	...	...	2	177	12.8
1905	14465	495	34.2	63	127.2	154	10.6	...	...	8	162	11.1
1906	15673	513	32.7	71	138.4	178	11.3	...	...	10	188	11.9
Averages for years 1897—1906	11632.4	448.4	39.0	67.8	152.1	162.1	14.2	.7	...	3.0	164.4	14.5
1907	16052	535	33.1	60	112.1	163	10.1		...	7	170	10.5

Area in acres ... 5814	Population 10318 Inhabited houses 2055 Average persons per house 5	At Census 1901

TABLE II.
Corrected according to Census 1901.

Year	Kirkby-in-Ashfield Urban District				East Ward.				West Ward.				South Ward.			
	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under 1 year	Population to middle of year	Births registered	Deaths at all ages	Deaths under 1 year	Population to middle of year	Births registered	Deaths at all ages	Deaths under 1 year	Population to middle of year	Births registered	Deaths at all ages	Deaths under 1 year
1897	8898	398	129	56		178	58	21		79	24	7		141	47	28
1898	9277	354	140	54		157	56	29		91	35	8		106	49	17
1899	9655	412	159	58		180	58	23		108	56	21		124	45	14
1900	10034	401	190	82		181	88	44		107	66	23		113	36	15
1901	10412	429	166	72	3912	169	61	25	3193	125	55	25	3307	135	50	22
1902	11495	466	176	81	4530	204	65	28	3430	129	61	28	3535	133	50	25
1903	12660	495	154	55	5325	212	57	24	3705	146	52	12	3630	137	45	19
1904	13755	521	175	86	5965	238	70	39	4020	122	47	22	3770	161	60	25
1905	14465	495	154	63	6335	211	64	24	4260	161	50	21	3870	123	48	18
1906	15673	513	178	71	6828	237	65	26	4685	158	68	28	4160	118	55	17
Averages of years 1897 to 1906 ...	11632.4	448.4	162.1	67.8	3289.5	196.7	64.2	28.3	2329.3	122.6	51.4	19.5	2227.2	129.1	48.5	20.0
1907	16052	535	170	60	7093	236	85	30	4763	165	42	17	4196	134	43	13

TABLE III.
Cases of Infectious Disease notified during the year 1907.

Notifiable Diseases	Cases notified in whole District								Total cases notified in each locality		
	At all ages		Under 15		15 to 25	25 to 65	65 and upwrds	East Ward	West Ward	South Ward	
	1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwrds	East Ward	West Ward	South Ward		
Diphtheria	8	...	3	5	...	...	6	...	2
Erysipelas	28	1	...	...	25	1	11	6	11
Scarlet Fever	68	1	26	36	1	...	46	15	7		
Enteric Fever	10	...	1	6	2	...	5	3	2		
Puerperal Fever	1	...	...	...	1	...	...	...	1
Cerebro Spinal Fever	1	...	1	...	...	...	...	...	1
Totals	116	2	31	47	8	27	68	24	24		

TABLE IV.
Causes of, and ages at, death during year 1907.

Causes of Death	Deaths in or belonging to whole District at subjoined ages							Deaths in or belonging to localities at all ages		
	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		East Ward	West Ward	South Ward
	All ages									
Measles ...	10	2	6	2	...	...		5	2	3
Scarlet Fever ...	1	...	1	1	...	...		1	...	...
Whooping-cough ...	3	1	...	...	...	...		2	1	...
Diphtheria ...	4	...	4	...	...	...		3	...	1
Diarrhoea...	3	...	...	...	...	...		2	1	...
Plithisis ...	14	1	3	4	5	...		4	6	4
Other tubercular diseases	2	...	...	...	...	...		1	...	1
Cancer ...	4	...	...	...	2	2		2	1	1
Bronchitis ...	8	4	1	...	...	3		3	2	3
Pneumonia ...	21	9	5	2	2	1		10	6	5
Other diseases of Respiratory organs	1	1	...	...	...	...		...	1	...
Premature Birth ...	14	14	...	...	...	...		7	5	2
Diseases and accidents of parturition	1	...	...	1	...	...		1	...	...
Heart disease ...	12	...	...	...	6	4		4	3	5
Accidents ...	6	...	...	1	2	...		3	3	...
Debility from birth ...	2	2	...	...	...	...		1	...	1
Meningitis ...	2	...	...	...	...	...		1	...	1
Rheumatism ...	1	...	1	...	...	...		1	...	...
Nephritis...	2	...	...	...	...	1		...	1	1
Cerebro Spinal Fever	1	...	...	...	...	...		...	...	...
Marasmus ...	8	...	...	...	...	...		4	3	1
All other causes	50	14	2	2	10	20		30	7	13
All causes ...	170	60	29	13	10	27	31	85	42	43

Infant Mortality during the year 1907.

Cause of Death		Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1-2 months	2-3 months	3-4 months	4-5 months	5-6 months	6-7 months	7-8 months	8-9 months	9-10 months	10-11 months	11-12 months	Total Deaths under 1 year
All causes certified	...	14	3	4	1	22	7	3	5	6	4	2		3	3		4	59
All causes uncertified	...			1		1												1
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2
Whooping Cough	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Diarrhoea	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	3
Premature Birth	...	8	2	3	...	...	1	...	...	...	...	...	...	...	...	...	...	14
Starvation	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Marasmus	...	1	...	1	1	...	1	...	2	1	...	1	...	1	1	...	...	10
Tuberculous Peritonitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Meningitis	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Convulsions	...	1	...	...	...	...	...	1	...	1	1	...	...	1	...	...	...	6
Bronchitis	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	4
Pneumonia	...	...	...	...	...	...	2	2	1	1	...	...	...	1	1	...	1	9
Other causes	...	4	...	...	...	...	1	...	...	...	2	...	...	...	...	...	1	8
Totals	...	14	3	5	1		7	3	5	5	4	2		4	3		4	60

Population estimated to middle of 1907 ... 16052

Births in the year	{	legitimate	...	516
		illegitimate	...	19

Deaths in the year	{	legitimate infants ...	57
		illegitimate infants ...	3

Deaths from all causes at all ages 170

Vital Statistics from 1896 (a) for whole District (b) for each Ward.

For Whole District						For Wards					
Years	Houses	Populat'n	Birth-rate	Death-rate at all ages	Infant Death-rate		Houses	Populat'n	Birth-rate	Death-rate at all ages	Infant Death-rate
1896	1704	8520	39.5	18.5	186.9	East Ward	684	3420	45.2	19.3	184.6
						West „	420	2100	35.1	18.2	170.5
						South „	600	3000	43.1	18.1	176.9
1897	1809	8898	44.7	14.4	140.7	East Ward	709	3545	50.2	16.3	118.0
						West „	460	2300	34.3	10.4	88.6
						South „	640	3200	44.0	14.4	198.5
1898	1915	9277	38.1	15.0	152.5	East Ward	708	3540	44.3	15.8	184.7
						West „	524	2620	34.7	13.3	87.9
						South „	683	3415	31.0	14.3	160.3
1899	2033	9655	42.6	16.4	140.7	East Ward	718	3590	50.1	16.1	127.7
						West „	612	3060	35.2	18.3	194.4
						South „	703	3515	35.2	12.6	112.9
1900	2108	10034	39.9	18.9	204.4	East Ward	741	3705	48.8	23.7	243.0
						West „	645	3225	33.1	20.4	214.9
						South „	722	3610	31.3	9.9	132.7
1901	2177	10412	41.2	15.9	167.8	East Ward	756	3872	43.6	15.3	147.9
						West „	625	3173	39.3	17.3	200.0
						South „	674	3273	41.2	15.2	162.9
1902	2299	11495	40.5	15.3	173.8	East Ward	906	4548	45.5	14.3	137.2
						West „	686	3444	37.4	17.7	237.0
						South „	707	3549	34.8	14.1	187.9
1903	2532	12660	39.1	12.1	111.1	East Ward	1065	5325	39.8	10.0	113.2
						West „	741	3705	39.4	14.0	83.1
						South „	726	3630	37.8	12.3	138.6
1904	2751	13755	37.8	12.6	165.0	East Ward	1193	5965	39.9	11.5	163.8
						West „	804	4020	30.3	11.6	180.3
						South „	754	3770	42.7	15.6	155.2
1905	2893	14465	34.2	11.1	127.2	East Ward	1267	6335	33.3	9.7	113.7
						West „	852	4260	37.7	10.5	130.4
						South „	774	3870	31.8	12.1	146.3
1906	3014	15673	32.7	11.3	138.4	East Ward	1313	6828	34.7	9.2	109.7
						West „	901	4685	33.7	13.4	177.2
						South „	800	4160	28.3	12.5	144.0
1907	3087	16052	33.3	10.1	112.1	East Ward	1364	7093	33.2	11.4	126.9
						West „	916	4763	34.6	9.6	103.0
						South „	807	4196	31.9	9.7	91.0

Vital Statistics of England and Wales, 1907, for comparison :—

England and Wales 76 Great Towns 142 Smaller Towns England and Wales less the 218 Towns	Birth-rate			Death-rate			Zymotic Death-rate			Infant Mortality		
	...	26.3	...	...	15.0	...	1.26	...	...	...	118.0	...
	...	27.0	...	...	15.4	...	1.54	...	...	...	127.0	...
	...	25.7	...	...	14.5	...	1.29	...	...	...	122.0	...
	...	25.6	...	...	14.7	...	.91	...	...	...	106.0	...

Summary of Visits to and Reports of Workshops, Factories, and Workplaces.

Name and Situation of Workshop	Name and Address of Owner.	No. of Workers	No. of Home-Workers	No. of Rooms	Cubic space	Sanitary conven'enc's		Date of inspection	Summary of Reports
					cubic ft.	M	F		
FACTORIES—									
Hosiery Factory, Nuncargate	Geo. Cook, Esq., Nuncargate, Kirkby. Notts.	19	15	2	11036	1	0	Mar. 5th	Only males employed
Station Street, East Kirkby	Walker and Sons, East Kirkby, Notts.	71	20	2	63000	3	3	Nov. 12th	Space and ventilation ample
Kirkby Manufacturing Co., Prospect Street, East Kirkby	Kirkby Manufacturing Co.	29	20	4	31360	2	0	do.	Separate closets for the sexes now provided
Ferated Water Works, the Park, Kirkby	Hardy and Martin, The Park, Kirkby, Notts.	3	...	2	16809	1		do.	Manure heap now regularly removed
WORKSHOPS—BAKEHOUSES									
Cemetery Road, East Kirkby	E. T. Beaumont, Esq., Diamond Avenue, East Kirkby, Notts.	3	...	2	1232	1		Mar. 4th	Ventilation and space ample
Morley Street, East Kirkby	Ed. Wilbourn, Station St., East Kirkby, Notts.	2	...	1	2816	1 pail		Nov. 11th	„ „
The Hill, Kirkby	J. Bond, The Hill, Kirkby	1	...	1	1032	„		do.	„ „
Victoria Road, Kirkby	F. Wilson, Victoria Road, Kirkby	3	...	1	1440	„		do.	Closet too near, yard dirty, no drainage
Prospect Street, East Kirkby	W. Rossington, Prospect Street, East Kirkby	1	...	1	1232	„		do.	Ventilation and space ample
Low Moor Road, East Kirkby	J. Burton and Sons, Low Moor Rd., E. Kirkby	1	...	1	1452	„		do.	„ „
The Hill, Kirkby	Co-operative Society, Kirkby, Notts.	3	...	3	1675	„		do.	„ „
Reform Street, Annesley Woodhouse	Henry Eakin, Reform St., Annesley Woodh'se	1	...	2	1430	„		do.	Deficient in ventilation and general cleanliness
WORKPLACES—									
Tailoring, Station Street, East Kirkby	Fred King, Station Street, East Kirkby	2	...	1	1040	„		Mar. 7th	Ventilation and space ample
Dressmaking, Gladstone Street, East Kirkby	Mrs. Scothern, East Kirkby, Notts.	3	...	1	1680	1 privy		Nov. 18th	„ „
Dressmaking, Diamond Avenue, East Kirkby	Miss Chadburn, East Kirkby, Notts	2	...	1	1321	„		do.	„ „
Dressmaking, Victoria Road, Kirkby	Miss Sharley, Kirkby, Notts.	3	...	1	1496	„		do.	„ „
Dressmaking, Fisher Street, Nuncargate	J. Beet, Fisher Street, Kirkby, Notts.	3	...	1	768	„		do.	„ „
Dressmaking, Cemetery Road, East Kirkby	Miss Hoyland, East Kirkby, Notts.	2	...	1	1014	„		do.	„ „
Printing, Cemetery Road, East Kirkby	A. Moore, Cemetery Road, East Kirkby	3	...	1	4604	„		do.	„ „

